

REMARKS

The Office Action mailed October 23, 2002, has been reviewed and the comments of the Patent and Trademark Office have been considered. Claims 2 and 3 have been canceled without prejudice or disclaimer. New claims 15 and 16 have been added. Claims 1, 4-6, 8, 12 and 14 have been amended. Claims 1 and 4-16 are pending for consideration.

Amendments

Independent claims 1, 8 and 14 have been amended to include limitations from original claims 2 and 3, which have been canceled. Claims 8 and 14 have also been amended to provide antecedent basis for terms introduced by the limitations of claims 2 and 3. Claim 4 has also been amended to recite that the top of the door body is integrally molded. Claims 1, 4-6, 8 12 and 14 have also all been amended to improve their form. These amendments to improve the form of these claims are not seen as changing the claim scope.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 3 and 12 stand rejected under 35 U.S.C. § 112, second paragraph. The limitations from claim 3, which has been cancelled, have been added to claims 1, 8 and 14, and the language "the rear" has been changed to "a rear" to correct any antecedent basis problems. In claim 12, "the inner face" has been changed to "an inner face" to correct any antecedent basis problems. Applicants respectfully submit that the rejections under 35 U.S.C. 112, second paragraph have been overcome.

Rejection under 35 U.S.C. §§ 102 and 103

Claims 1-6, 8-11, 13 and 14 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 2,408,704 to Taylor (hereafter "Taylor"). Claims 7 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Taylor. Applicants respectfully traverse these rejections for the following reasons.

Independent claim 1 is directed to a door device for opening and closing the front of a vending machine body. In claim 1, as amended, portions of the door are curved so that the radius of curvature is reduced toward a rear. Independent claims 8 and 14, as amended, also recite that the curved surface of the portion from the top to the side is molded so that the radius of curvature is reduced toward a rear. Taylor does not disclose this feature of claims 1, 8 and 14, where the curved surface of the portion from the top to the side is molded so that the radius of curvature is reduced toward a rear, and thus fails to anticipate any of claims 1, 8 or 14.

Moreover, the feature of claims 1, 8 and 14, where the curved surface of the portion from the top to the side is molded so that the radius of curvature is reduced toward a rear, provides attendant advantages not suggested by Taylor. The present specification discusses these advantages in paragraph 51 as follows:

since the radius of curvature in the front part is large, at the time of pressing, local concentration of expansion and contraction of the sheet member can be reduced, and the expansion and contraction force can be dispersed. At the same time, since the radius of curvature in the rear part is small, even though the vending machine body 2 in its corner 21, which, when the door device 1 has been closed, faces the door device, is not formed at a large radius of curvature, there is no sense of incongruity in appearance. Therefore, the shape of the vending machine body 2 in its corner 21, which has hitherto been formed at a right angle, is not required to be changed to a curved shape having a large radius of curvature. This can eliminate the need to significantly change the design of the vending machine body 2.

Thus, in the present invention, the larger radius of curvature toward the front of the door reduces local concentration of expansion and contraction of the sheet of the metal member of the door, while at the same time the relatively smaller radius of curvature toward the rear reduces a sense of incongruity between the door and the vending machine body. Taylor, not suggesting reducing the radius of curvature of the door toward the rear, fails to suggest these attendant advantages.

Accordingly, for the reasons given above, applicant respectfully submits that claims 1, 8 and 14, and claims 2-7 and 9-13, which respectively depend therefrom, are

patentable over Taylor. Accordingly, applicants respectfully request that the rejection of these claims under 35 U.S.C. §§ 102 and 103 be withdrawn.

New claims 15 and 16

Independent claim 15 and dependent claim 16, which depends therefrom, have been added. Claims 15 and 16 are directed to a method for producing a door device for opening and closing the front of a vending machine body. Claim 15 recites two pressing operations on a single flat metal member, where the first pressing provides a first concave portion, and the second pressing provides the front, sides, top and bottom of the door body. Taylor fails to disclose the two recited pressing steps of claim 15. Accordingly, applicants submit that claim 15, and claim 16 which depends therefrom, are patentable over Taylor.

CONCLUSION

In view of the foregoing amendments and remarks, applicants respectfully submit that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, the Examiner is invited to contact the undersigned at the number below.

Respectfully submitted,

Date January 22, 2003

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and applicant(s) hereby petition for any needed extension of time.

Versions with Markings to Show Changes Made

In the Claims:

1. (Once Amended) A door device for [opening/closing] opening and closing the front of a vending machine body, said door device comprising an integrally molded structure of a front, a side, and a top of a door body, without any joint, produced by pressing of a single sheet of a metal member,

wherein a portion from the front to the side, a portion from the side to the top, and a portion from the front to the top have curved surfaces, while a portion over three faces of the front, the side, and the top to one another has a spherical surface; and

the curved surface of the portion from the top to the side is molded so that the radius of curvature is reduced toward a rear.

4. (Twice Amended) The door device according to claim 1, wherein [the] a bottom, the front, [and] the side, and the top of the door body [have been] are integrally molded without any joint.

5. (Once Amended) The door device according to claim 4, wherein a portion [for connecting] from the front to the side, a portion [for connecting] from the side to the bottom, and a portion [for connecting] from the front to the bottom have [a] curved [surface] surfaces, while a portion [for connecting] over three faces of the front, the side, and the bottom [to one another] has a spherical surface.

6. (Once Amended) The door device according to claim 5, wherein the curved surface of the portion [for connecting] from the bottom to the side [has been] is molded so that the radius of curvature is reduced toward [the] a rear.

8. (Once Amended) A door device for [opening/closing] opening and closing the front of a vending machine body, said door device comprising an integrally molded structure of a front, a side, and a top of a door body, and a concave for displaying sample products or the like, produced by pressing of a single sheet of a metal member,

wherein a portion from the front to the side, a portion from the side to the top, and a portion from the front to the top have curved surfaces, while a portion over three faces of the front, the side, and the top to one another has a spherical surface; and

the curved surface of the portion from the top to the side is molded so that the radius of curvature is reduced toward a rear.

12. (Twice Amended) The door device according to claim 8, which has a decoration in a concave/convex form, on [the] an inner face of the display concave, produced by pressing.

14. Once Amended) A door device for [opening/closing] opening and closing the front of a vending machine body, said door device comprising an integrally molded structure of a front, a side, a top, and a bottom of a door body, without any joint, produced by pressing of a single sheet of a metal member,

wherein a portion from the front to the side, a portion from the side to the top, and a portion from the front to the top have curved surfaces, while a portion over three faces of the front, the side, and the top to one another has a spherical surface; and

the curved surface of the portion from the top to the side is molded so that the radius of curvature is reduced toward a rear.